PL/1 interview questions based on real-world scenarios:

1. Explain the usage of DECLARE statement in PL/1. Provide an example scenario where DECLARE statement is necessary.

2. Discuss the difference between STATIC and AUTOMATIC storage classes in PL/1. When would you prefer one over the other in a program? Provide examples.

3. Describe how you would handle date and time manipulation in PL/1. Provide examples of scenarios where date and time functions are useful.

4. Explain the concept of structures and arrays in PL/1. How do you define and manipulate them? Provide a real-world scenario where structures and arrays are beneficial.

5. Discuss the error handling mechanisms in PL/1. How do you handle exceptions and error conditions in your programs? Provide examples.

6. Explain the importance of USING and RETURN statements in PL/1 subprograms. How do you pass parameters and return values between subprograms? Provide examples.

7. Describe your experience with file handling in PL/1. How do you read from and write to files? Provide examples of handling sequential and indexed files.

8. Discuss the process of debugging a PL/1 program. What debugging tools and techniques do you use to identify and fix errors efficiently? Provide examples.

9. Explain how you would optimize a PL/1 program for performance. What techniques do you employ to improve program efficiency? Provide examples.

10. Describe your experience with database access in PL/1. How do you interact with relational databases from a PL/1 program? Provide examples of SQL integration.

11. In a scenario where you need to integrate PL/1 programs with modern technologies or platforms, such as web services or cloud-based systems, how would you approach the integration? Provide examples.

12. Discuss your familiarity with PL/1 standards and best practices. How do you ensure adherence to coding standards and maintainability in your PL/1 projects?

13. Describe your approach to documentation and code maintenance in PL/1 projects. How do you ensure that your code is well-documented and easy to maintain for future developers?

14. In a scenario where you need to migrate legacy PL/1 systems to modern platforms or architectures, what challenges do you anticipate, and how would you approach the migration process?

15. Explain your experience with inter-language communication in PL/1. How do you interface PL/1 with other programming languages or systems? Provide examples.